

WHAT IS CLAIMED IS:

1. A rotating electric machine comprising:
a stator;
5 a stator coil wound around the stator;
a rotor;
a magnetic pole and a signal rotor fixed to the rotor;
a detection stator disposed opposite to the signal rotor,
for detecting the rotational position of the rotor; and
10 an adjuster for adjusting the position of the signal rotor
or the detection stator by energizing the stator coil to rotate
the rotor by a predetermined angle or more and constrain the
rotator.
- 15 2. A rotating electric machine comprising:
a stator;
a stator coil wound around the stator;
a rotor;
a magnetic pole and a signal rotor fixed to the rotor;
20 a detection stator disposed opposite to the signal rotor,
for detecting the rotational position of the rotor; and
a controller for controlling energizing the stator coil
on the basis of a detection result of the detection stator;
wherein the controller generates a correction value by
25 comparing the detection result from the detection stator and

the beforehand stored detection data, and the controller controls energizing the stator coil on the basis of the correction value, when the rotor is rotated by a predetermined angle or more and constrained by energizing the stator coil.

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3. The rotating electric machine according to claim 1,

wherein the rotor is rotated by the predetermined angle or more by supplying a direct current to a predetermined phase
10 of the stator coil and then a direct current to a different phase from the predetermined phase.

4. A method for positioning a rotational position sensor for a rotating electric machine, the rotational position
15 sensor comprising: a stator coil wound around a stator; a rotor having a magnetic pole and a signal rotor fixed to a rotation axis thereof; and a detection stator, disposed opposite to the signal rotor, for detecting the rotational position of the rotor, the method comprising:

20 constraining the rotor from rotating by energizing the stator coil;

detecting the rotor to be rotated by a predetermined angle or more; and

adjusting the position of the detection stator or the
25 signal rotor so that the detection stator may have a

predetermined signal.

5. A method for positioning a rotational position sensor for a rotating electric machine, the rotational position sensor comprising: a stator coil wound around a stator; a rotor having a magnetic pole iron core with a field coil and a signal rotor fixed to a rotation axis thereof; and a detection stator, disposed opposite the signal rotor, for detecting the rotational position of the rotor, the method comprising:

10 fixing the magnetic pole iron core and the signal rotor in a predetermined positional relation in a rotational direction;

constraining the rotor from rotating by energizing the stator coil and the field coil;

15 detecting the rotor to be rotated by a predetermined angle or more; and

adjusting the position of the detection stator so that the detection stator may have a predetermined signal.

20 6. the method for positioning a rotational position sensor for a rotating electric machine according to claim 5, wherein the magnetic pole iron core is a claw pole.

7. A method for positioning a rotational position sensor for a rotating electric machine, the rotational position

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sensor comprising: a stator coil wound around a stator; a rotor having a magnetic pole composed of a permanent magnet and a signal rotor fixed to a rotation axis thereof; and a detection stator disposed opposite to the signal rotor, for detecting
5 the rotational position of the rotor, the method comprising:

fixing the magnetic pole and the signal rotor in a predetermined positional relation in a rotational direction;

constraining the rotor from rotating by energizing the stator coil;

10 detecting the rotor to be rotated by a predetermined angle or more; and

adjusting the position of the detection stator so that the detection stator may have a predetermined signal.

15 8. The method for positioning the rotational position sensor for the rotating electric machine according to claim 4,

wherein the step of constraining the rotor from rotating by energizing the stator coil includes rotating the rotor by
20 the predetermined angle by supplying a direct current to a predetermined phase of the stator coil and then a direct current to a different phase from the predetermined phase, and constraining the rotor from rotating.

25 9. The method for positioning the rotational position

sensor for the rotating electric machine according to claim
4,

wherein the rotational position sensor is a resolver.

5 10. The method for positioning the rotational position
sensor for the rotating electric machine according to claim
9,

 wherein the rotational position sensor is a resolver of
one phase excitation and two phase output, wherein the position
10 of the detection stator or the signal rotor is adjusted so that
one of the output signals may be zero.

 11. The method for positioning the rotational position
sensor for the rotating electric machine according to claim
15 9,

 wherein the rotating electric machine has n pole pairs,
and wherein the position of the detection stator or the
signal rotor is adjusted so that the average value of n outputs
from the detection stator may be zero, when the rotor is
20 constrained at n positions from rotating by energizing the
stator.

 12. A device for positioning a rotational position
sensor for a rotating electric machine, the rotational position
25 sensor comprising: a stator coil wound around a stator; a rotor

having a magnetic pole iron core with a field coil and a signal rotor fixed to a rotation axis thereof; and a detection stator, disposed opposite to the signal rotor, for detecting the rotational position of the rotor, the device comprising:

5 a fixing unit for fixing the magnetic pole iron core and the signal rotor in a predetermined positional relation in a rotational direction;

 a constraining unit for constraining the rotor from rotating by energizing the stator coil and the field coil;

10 a detector for detecting the rotor to be rotated by a predetermined angle or more; and

 an adjuster for adjusting the position of the detection stator so that the detection stator may have a predetermined signal.

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13. A device for positioning a rotational position sensor for a rotating electric machine, the rotational position sensor comprising: a stator coil wound around a stator; a rotor having a magnetic pole composed of a permanent magnet and a signal rotor fixed to a rotation axis thereof; and a detection stator disposed opposite to the signal rotor, for detecting the rotational position of the rotor, the device comprising:

20 a fixing unit for fixing the magnetic pole and the signal rotor in a predetermined positional relation in a rotational direction;

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a constraining unit for constraining the rotor from rotating by energizing the stator coil;

a detector for detecting the rotor to be rotated by a predetermined angle or more; and

- 5 an adjuster for adjusting the position of the detection stator so that the detection stator may have a predetermined signal.